

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: T. KAJI et al.

Serial No.: 10/052,538

Filed: January 23, 2002

Title: PLASMA PROCESSING APPARATUS PROCESSING
METHOD

Group: 1792 Examiner: A. CROWELL **CONF. NO. 4015**

----- NOTICE OF APPEAL FILED NOVEMBER 19, 2007 -----

REPLY BRIEF IN ACCORDANCE WITH 37 CFR §41.41

Mail Stop: REPLY BRIEF

January 12, 2009

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

Sir:

In response to the Examiner's Answer dated November 12, 2008, and in accordance with the provisions of 37 CFR §41.41, applicants respectfully provide the following responses to the "Response to Arguments" set forth beginning on page 19 of the Examiner's Answer.

Response to Arguments

(1) On page 19, paragraph A of the Examiner's Answer, it is argued that there is no support for the term "fine pattern" in the claims because the only mention of the term in the specification is in the Background of the Invention. In response, the appellants' respectfully submit that the Background of the Invention is part of the written description, and, as such, any definition of a term therein is sufficient to provide support for the use of the same term in the claims.

(2) Beginning on page 19 in paragraphs B, F, and G of the Examiner's Answer, the arguments are made that Heinrich's coils Sp are structurally equivalent to the claimed magnetic field forming means (e.g., the coils 230 and 240 of Fig 28 of the present application), that the arrangement of Heinrich's coils will inherently perform the claimed function of providing higher plasma density at the periphery, and that the claimed higher plasma density is intended use that must result in actual structural difference from the prior art.

In response, appellant notes that means plus function claims are meant to allow an inventor to claim a means for performing a function, and to meet the limitations the examiner must show that the prior art would make the claimed means for obtaining the function obvious. The fact that the coils of Heinrich might be capable of performing the claimed function if they were located in a particular location and applied with specific

currents to obtain the claimed canceling/superposing effect to achieve the uniform plasma does not mean that the Heinrich reference itself renders the invention obvious. One reading Heinrich finds no mention of any recognition of either arranging the coils or applying currents to achieve the claimed canceling/superposing effect. Further, there is no recognition that this can be used to improve plasma density uniformity. Further, this is not at all inherent in Heinrich. Unless the coils are arranged and applied with the proper currents to obtain the canceling/superposing effect, they will not inherently achieve it.

With regard to the arguments of intended use, it is respectfully submitted that this argument, if accepted, would effectively render 35 USC §112, Paragraph 6 meaningless. Means plus function can always be characterized as intended use. It is specifically designed to permit one to claim a means to achieve a function which is, of course, a "use". Therefore, it is respectfully submitted that the attempt to overcome the proper use of §112, Paragraph 6 in this rejection, by saying that the claimed magnetic field forming means is intended use is an improper basis for a prior art rejection.

(3) In paragraphs C, D, and H of the Examiner's Answer, the arguments are made that it is obvious to combine isolated teachings of 5 different references to arrive at the claimed specific plasma density range defined with regard to the etching means of the claims. In response to these arguments, the appellants respectfully submit that this is hindsight with the benefit of the appellant's disclosure. The fact

that it is necessary to pick various parameters from 5 different sources, and then to say that it would be obvious to do this to arrive at a specific limited range within a much broader range taught by the prior art, with no recognition of the significance of this specific range on improved etching is clearly not at all suggested by the cited art. Other than the appellant's own teachings, there is nothing to lead one to do this. Of course one can always find isolated teachings and combine them to meet virtually any invention, but here there is no showing as to why one would actually do this because there is no recognition of the relationship between the specific claimed range and improved uniform etching. Further, there is no suggestion of combining the claimed etching means with the claimed magnetic field forming means, as required by the present claims.

(4) In paragraph E of the Examiner's Answer, it is argued that the improved workability on samples of 300 mm or larger is "simply a result of operating the apparatus within specified parameters." Of course this is true. However, as discussed above, to arrive at the specified parameters, including the claimed plasma density range, it is necessary to use hindsight of appellants invention to make the combinations and modifications suggested in the Examiner's Answer.

(5) Conclusion

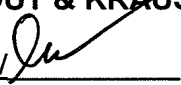
For the reasons set forth above, appellant's again request that the Examiner's rejections be reversed.

Applicants also note that a Request for Oral Hearing (PTO/SB/32) with appropriate fee is being filed concurrently.

To the extent necessary, Applicants petition for an extension of time under 37 CFR §1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Antonelli, Terry, Stout & Kraus, LLP Deposit Account No. 01-2135 (Docket No. 520.35237VX3), and please credit any excess fees to such deposit account.

Respectfully submitted,
ANTONELLI, TERRY, STOUT & KRAUS, LLP

GEM/dks
703-312-6600

By /Gregory E. Montone/ 
Gregory E. Montone
Reg. No. 28,141